Slobodyansky



1600

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/830,111C

DATE: 06/23/2003 TIME: 14:44:56 #20

Input Set : A:\21581-265.seq.ST25.txt
Output Set: N:\CRF4\06232003\1830111C.raw

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3 <110> APPLICANT: Kaneka Corporation
         Matsuda, Hideyuki
 4
 5
         Kawamukai, Makota
 6
         Yajima, Kazuyoshi
 7
         Ikenaka, Yasuhiro
 8
         Hasegawa, Junzo
         Takahashi, Satomi
11 <120> TITLE OF INVENTION: Process For Producing Coenzyme Q10
13 <130> FILE REFERENCE: 21581-00265-US
15 <140> CURRENT APPLICATION NUMBER: 09/830,111C
16 <141> CURRENT FILING DATE: 2001-07-23
18 <160> NUMBER OF SEQ ID NOS: 2
20 <170> SOFTWARE: PatentIn version 3.2
22 <210> SEO ID NO: 1
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25 <213> ORGANISM: Saioella complicata
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52 ccacgacgac gttategacg ctteegagae cagaegaaae geaceateeg gaaaceagge
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1500

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/830,111C TIME: 14:44:56

DATE: 06/23/2003

Input Set : A:\21581-265.seq.ST25.txt
Output Set: N:\CRF4\06232003\I830111C.raw

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|--|------------|------------|-------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|----------------------|------------|---|
| 92 Met   |            |            |             |            | Leu i      | Arg :      | Ile 2      | Arg        | Ser        | Ile        | Ser        | Ser        | Arg        | Ser :                | Ile        |   |
| 93 1   |            |            |             | 5          |            |            |            |            | 10         |            |            |            |            | 15                   |            |   |
| 96 Ala<br>97   | Ser I      |            | Arg :<br>20 | Ser '      | Val '      | Thr :      |            | Arg<br>25  | Thr        | Ala        | Ser        | Ala        | Pro<br>30  | Ser :                | Leu        |   |
| 100 Arg<br>101   | Leu        | Arg<br>35  | Cys         | Thr        | Pro        | Thr        | Ser<br>40  | Arg        | Pro        | Ser        | Ser        | Ser<br>45  | Trp        | Ala                  | Ala        |   |
| 104 Ala<br>105   | Val        | Ser        | Ser         | Ala        | Ser        | Arg<br>55  | Leu        | Val        | Glu        | Pro        | Asp<br>60  | Pro        | Asn        | Gln                  | Pro        |   |
| 108 Leu<br>109 65  | Ile        | Asn        | Pro         | Leu        | Asn<br>70  | Leu        | Val        | Gly        | Pro        | Glu<br>75  | Met        | Ser        | Asn        | Leu                  | Thr<br>80  |   |
| 112 Ser<br>113   | Asn        | Ile        | Arg         | Ser<br>85  | Leu        | Leu        | Gly        | Ser        | Gly<br>90  | His        | Pro        | Ser        | Leu        | Asp<br>95            |            |   |
| 116 Val<br>117   | Ala        | Lys        | Tyr<br>100  | Tyr        | Val        | Gln        | Ser        | Glu<br>105 | Gly        | Lys        | His        | Ile        | Arg<br>110 | Pro                  | Leu        |   |
| 120 Met<br>121   | Val        | Leu<br>115 | Leu         | Met        | Ala        | Gln        | Ala<br>120 |            | Glu        | Val        | Ala        | Pro<br>125 | _          | Val                  | Gln        |   |
| 124 Gly<br>125   | Trp<br>130 | Glu        | Lys         | Val        | Val        | Glu<br>135 | Val        | Pro        | Val        | Asn        | Glu<br>140 | Gly        | Leu        | Ala                  | Pro        |   |
| 128 Pro<br>129 145   | Glu        | Val        | Leu         | Asn        | Asp<br>150 | Lys        | Asn        | Pro        | Asp        | Met<br>155 | Met        | Asn        | Met        | Arg                  | Ser<br>160 |   |
| 132 Gly<br>133   | Pro        | Leu        | Thr         | Lys<br>165 | Asp        | Gly        | Glu        | Ile        | Glu<br>170 | Gly        | Gln        | Thr        | Ser        | Asn<br>175           |            |   |
| 136 Leu<br>137   | Ala        | Ser        | Gln<br>180  | Arg        | Arg        | Leu        | Ala        | Glu<br>185 | Ile        | Thr        | Glu        | Met        | Ile<br>190 | His                  | Ala        |   |
| 140 Ala<br>141   | Ser        | Leu<br>195 | Leu         | His        | Asp        | Asp        | Val<br>200 | Ile        | Asp        | Ala        | Ser        | Glu<br>205 | Thr        | Arg                  | Arg        |   |
| 144 Asn<br>145   | Ala<br>210 | Pro        | Ser         | Gly        | Asn        | Gln<br>215 |            | Phe        | Gly        | Asn        | Lys<br>220 | Met        | Ala        | Ile                  | Leu        |   |
| 148 Ala<br>149 225   | Gly        | Asp        | Phe         | Leu        | Leu<br>230 |            | Arg        | Ala        | Ser        | Val<br>235 |            | Leu        | Ala        | Arg                  | Leu<br>240 |   |
| 152 Arg  | Asn        |            |             |            | Ile        |            |            |            |            | Thr        |            | Ile        | Ala        | Asn<br>255           | Leu        |   |
| 156 Val<br>157   |            |            |             |            |            |            |            |            |            |            |            | Asp        | Asp<br>270 |                      |            |   |
| 160 Glu<br>161   | Ala        | Thr<br>275 |             | Thr        | Gln        | Glu        | Thr<br>280 |            | Asp        | Tyr        | Tyr        | Leu<br>285 |            | Lys                  | Thr        | , |
| 164 Tyr<br>165   | Leu<br>290 |            | Thr         | Ala        | Ser        | Leu<br>295 |            | Ala        | Lys        | Ser        | Cys<br>300 |            | Ala        | Ser                  | Ala        |   |
| 168 Leu<br>169 305   | Leu        | Gly        | Gly         | Ala        | Thr<br>310 |            | Glu        | Val        | Ala        | Asp<br>315 | Ala        | Ala        | Tyr        | Ala                  | Tyr<br>320 |   |
| 172 Gly  |            | Asn        | Leu         | Gly        |            | Ala        | Phe        | Gln        | Ile        |            |            | Asp        | Met        | Leu                  |            |   |

DATE: 06/23/2003

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Input Set : A:\21581-265.seq.ST25.txt
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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 176 | Tyr | Thr | Val | Ser | Ala | Thr | Asp | Leu | Gly | Lys | Pro | Ala | Gly | Ala | Asp | Leu |
| 177 |     |     |     | 340 |     |     |     |     | 345 |     |     |     |     | 350 |     |     |
| 180 | Gln | Leu | Gly | Leu | Ala | Thr | Ala | Pro | Ala | Leu | Phe | Ala | Trp | Lys | His | His |
| 181 |     |     | 355 |     |     |     |     | 360 |     |     |     |     | 365 |     |     |     |
| 184 | Ala | Glu | Leu | Gly | Pro | Met | Ile | Lys | Arg | Lys | Phe | Ser | Asp | Pro | Gly | Asp |
| 185 |     | 370 |     |     |     |     | 375 |     |     |     |     | 380 |     |     |     |     |
| 188 | Val | Glu | Arg | Ala | Arg | Glu | Leu | Val | Glu | Lys | Ser | Asp | Gly | Leu | Glu | Lys |
| 189 | 385 |     |     |     |     | 390 |     |     |     |     | 395 |     |     |     |     | 400 |
| 192 | Thr | Arg | Ala | Leu | Ala | Glu | Glu | Tyr | Ala | Gln | Lys | Ala | Leu | Asp | Ala | Ile |
| 193 |     |     |     |     | 405 |     |     |     |     | 410 |     |     |     |     | 415 |     |
| 196 | Arg | Thr | Phe | Pro | Glu | Ser | Pro | Ala | Arg | Lys | Ala | Leu | Glu | Gln | Leu | Thr |
| 197 |     |     |     | 420 |     |     |     |     | 425 |     |     | ,   |     | 430 |     |     |
| 200 | Asp | Lys | Val | Leu | Thr | Arg | Ser | Arg |     |     |     |     |     |     |     |     |
| 201 |     |     | 435 |     |     |     |     | 440 |     |     |     |     |     |     |     |     |

VERIFICATION SUMMARY

DATE: 06/23/2003 PATENT APPLICATION: US/09/830,111C TIME: 14:44:57

Input Set : A:\21581-265.seq.ST25.txt
Output Set: N:\CRF4\06232003\I830111C.raw